

**Acknowledgements**

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**References**

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**Glossary of liverwort terms**

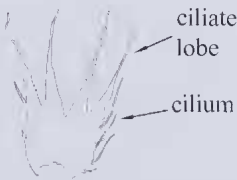
**Alternate** With branches alternating from one side to another along stem or thallus, so that the branches are not opposite.



alternate

**Bipinnate** Branched pinnately, and each branch also branched pinnately.

**Ciliate** With long hair-like processes (cilia).



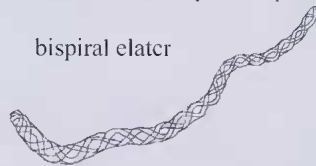
**Complicate-bilobed** Consisting of two seemingly separate segments (lobe and lobule, or double lamina and keel), very different in their size and shape; the segments are joined, but sometimes very narrowly. See *keel*, *lobule*.

**Dissected** Notched at the apex; if the notch is so deep that the two sides touch or overlap at their tips, then the term 'deeply dissected' is used.

**Diocious** Having the male and female organs on separate plants.

**Dorsal** On the upper side of the thallus or shoot, i.e. farthest from the substratum.

**Elater** Elongated cell with spiral or bispiral internal structure, present in most liverwort and some hornwort capsules; involved in spore dispersal.



**Entire** Without teeth, spines or other projections (but may be lobed).

**Epiphyllous** Growing on the leaf or frond of another plant.

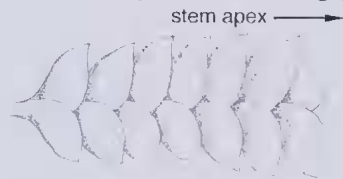
**Epiphytic** Growing on another plant (usually on bark).

**Flagellum** A ventral branch with minute leaves, usually anchoring the plant to the substratum.

**Gemma** A multicelled propagule capable of growing into a new plant; often formed in a specialised organ but also often arising from leaves, thallus margins or other plant parts.

**Hyaline** Transparent and colourless.

**Incubous** Arranged so that, when viewed from the dorsal side, each leaf overlaps the one nearer the stem apex (or would if they were close enough).

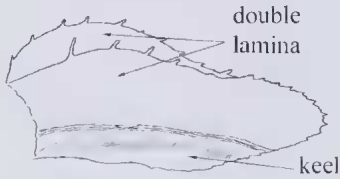


**Intercalary branch** A branch produced by an outgrowth from within the stem, rather than from the stem apex. Intercalary branches have a tiny

'collar' of stem cortex cells at their base.

**Involute** A cylindrical structure surrounding the male organs (sometimes female organs) in some thallus liverworts.

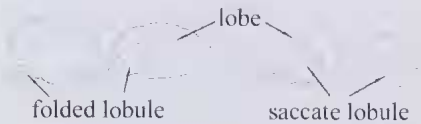
**Keeled** Having a double lamina in one section of the leaf, the two halves fused along a longitudinal line that meets the stem at the leaf base, so that the other part of the leaf resembles a keel.



**Lamellate** Having wing-like projections arising from the thallus.

**Lamina** The thinner parts of a thallus, as distinct from the midrib.

**Lobe** Segment of a leaf or thallus, formed by growth of separate apical cells. See *lobule*.



**Lobule** Segment of a leaf or thallus formed by rolling or folding of the leaf or thallus, rather than growth from separate apical cells.

**Marsupium** A fleshy, root-like and usually hairy organ buried in the soil, containing the developing sporophyte in some liverworts.

**Midrib** A narrow thickening along the centre-line of a thallus.

**Monoecious** Having male and female organs on the same plant.

**Mucilage papilla** Small club-shaped cells formed at or near apex of thallus or leaf; often not persisting when dry.

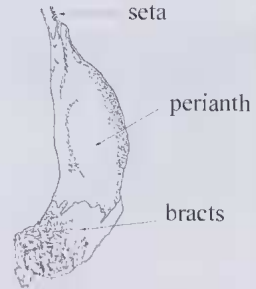


**Oil body** Globule within a cell, containing lipids and other fatty substances; often useful for distinguishing genera or species.

**Palmate** Branching from a central point, like the fingers of a hand or the spokes of a wheel.

**Papilla** Pimple-like thickening of the outer cell wall.

**Perianth** A fleshy, usually cylindrical structure in which the sporophyte develops.



**Pinnate** Branched on each side of the stem or thallus at more or less regular intervals, so that the branches are more or less in opposite pairs.



**Pseudoelater** Elater-like multicellular structure in the capsules of some hornworts.

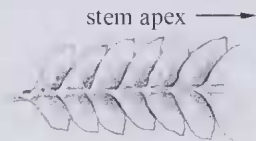
**Rhizoid** A hair-like growth on the ventral side of the plant, usually anchoring it to the substratum.

**Seta** Translucent stem on which capsule is raised.

**Sporophyte** The seta and capsule together.

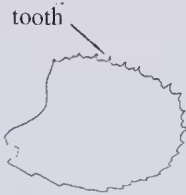
**Striolate** Marked by fine lines or linear structures.

**Succubous** Arranged so that, when viewed from the dorsal side, each leaf

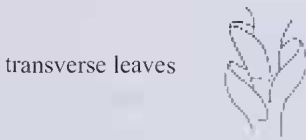


overlaps the one farther the stem apex (or would if they were close enough).

**Tooth** Small, tapering projection on margin of leaf or thallus, consisting of one or a few cells, or formed by an extension of a cell wall.

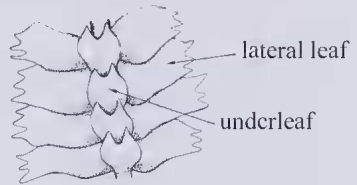


**Transverse** Having the join between the leaves and stem running sideways across the stem, not angled.



**Trigone** Triangular to cordate thickening at the point where three cells join.

**Underleaves** Leaves of a different size (usually much smaller) and shape than the lateral leaves, and attached on the ventral side of the stem.



**Ventral** On the underside of the thallus or shoot, i.e. closest to the substratum.

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## Studies on Victorian bryophytes 6. Key to thallose liverworts and hornworts

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### Abstract

A new key to the genera and many species of thallose liverworts and hornworts (except *Fossombronia* and *Riccia* species) in Victoria is provided. (*The Victorian Naturalist* 123 (4), 2006, 247-254)

### Introduction

This artificial key complements the key to the genera of leafy liverworts in this volume. It is based on the key to southern Australian liverworts in Scott (1985), but is substantially updated and revised to take into account taxonomic changes and additions to the Victorian flora in the last 20 years. Common mistakes are allowed for in the main key and group keys.

The key can be used to identify specimens to species level, except for species of *Fossombronia* (which are very difficult to identify without detailed analysis) and *Riccia* (which is under review in Australia and is likely to undergo substantial changes). Also keep in mind that species and genera presently known only from

Tasmania, New Zealand or other parts of the world might still be found in Victoria. This key is not valid for other regions of Australia.

Most of the thallose liverworts and hornworts in Victoria are described and illustrated in Scott (1985) and Meagher and Fuhrer (2003).

Names of taxa follow the current national checklist (McCarthy 2006).

A basic glossary of terms used in this key is included in the key to leafy liverworts (*Studies* 5 in this issue). For a complete and beautifully illustrated glossary of bryological terms, see Malcolm and Malcolm (2000).